



UNITED STATES PATENT AND TRADEMARK OFFICE

NV
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,764	07/15/2003	Kenneth L. Justice	LEEE 2 00309	8797
7590	11/30/2004		EXAMINER	
Fay, Sharpe, Fagan, Minnich & McKee, LLP 7th Floor 1100 Superior Avenue Cleveland, OH 44114-2579			GUSHI, ROSS N	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/619,764	JUSTICE, KENNETH L.	
	Examiner Ross N. Gushi	Art Unit 2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 20 October 2004.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1,2,7-21 and 23-64 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1,2,7-21 and 23-64 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. _____.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 7, 14, 16, 18, 19, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis et al. ("Ellis") and Liao, Haag, and Chow et al. ("Chow"). Regarding claims 1, 21, the admitted prior art ("APA") discloses everything except that the joining cavity does not engage the outer threaded surface of said cable connection sleeve after a majority of said electrical coupling cavity is at least partially telescopically inserted in said cable connection sleeve. Ellis discloses a connector where the locking member 100 engages the outer threaded surface 34 of a cable connection sleeve after the mating members (80, 40) are fully engaged and the connectors (128, 48) are connected. At the time of the invention, it would have been obvious to increase the longitudinal sliding play distance of the coupling sleeve 120 of the admitted prior art such that the sleeve would not engage the outer threaded surface 34 of a cable connection sleeve until after a majority of said electrical coupling cavity was telescopically inserted in said cable connection sleeve and the connectors (128, 48) were connected. Ellis teaches that this would have been done by increasing the distance between the front stopping flange (88 in Ellis, 70 in the APA) and the rear stop (face 158 in Ellis, face of flange 38 in the APA). The

suggestion or motivation for doing so would have been to allow quicker engaging and disengaging of the mating parts as taught in Ellis (see e.g. Ellis abstract, col. 1, lines 49-55) and as is well known in the art.

Regarding the gripping features, the APA shows gripping surfaces 122. Liao (see ribs 21 on ring 20), Haag (see finger tabs 72 on sleeve 54), and Chow (see gripping rings on coupling ring 26) are examples of connectors disclosing a plurality of "nodes" in a star shape to facilitate manual rotation. At the time of the invention, it would have been obvious to modify the APA gripping surface to include various gripping design features including "nodes" in a star shape as taught in Liao, Haag and Chow. The suggestion or motivation for doing so would have been to provide a good grip and facilitate rotation, as taught by Liao (col. 2, lines 40-45), Haag (col. 6, lines 65-67) and Chow and as is well known in the art.

Regarding claims 2, 14, 16, 18, 19, 23, the APA discloses these limitations.

Regarding claims 7, the APA does not disclose that at least one-thread in said joining cavity of said coupling sleeve is spaced from a receiving end of said joining cavity. Ellis discloses that at least one-thread in the joining cavity of the coupling sleeve is spaced from a receiving end of said joining cavity. At the time of the invention, it would have been obvious to modify the APA such that at least one-thread in the joining cavity of the coupling sleeve would have been spaced from a receiving end of said joining cavity as taught in Ellis. The suggestion or motivation for doing so would have been to prevent damage to the threads and ensure that the threaded mating parts

were properly oriented before engaging the mating threads, such motivation being known in the art.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis and Liao, Haag and Chow as discussed above in view of Herrmann, Jr. ("Herrmann"). The APA does not disclose that the receiving end of said joining cavity has a beveled surfaced designed to-receive a front end of said cable connection sleeve. Herrmann discloses that the receiving end of a joining cavity has a beveled surfaced designed to-receive a front end of said cable connection sleeve (see figure 5). At the time of the invention, it would have been obvious to bevel the receiving end of the APA joining cavity. The suggestion or motivation for doing so would have been to facilitate mating of the mating sleeves, as is well known in the art.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Herrmann, Liao, Haag and Chow for the reasons discussed regarding claims 9 and 4.

Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Liao, Haag and Chow as in claim 7 in view of Glover. The APA does not show at least a majority of said electrical coupling cavity extending outwardly from said receiving end of said joining cavity. Glover discloses a majority of an electrical coupling cavity extending outwardly from a receiving end of a joining cavity. At the time of the invention, it would have been obvious to extend the APA coupling cavity as desired, such as disclosed in Glover. The suggestion or motivation for doing

so would have been to allow facilitate mating of the electrical connectors prior to locking the connectors together, as taught in Glover and as is well known in the art.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Liao, Haag, Chow, Herrmann, and Glover for the reasons discussed regarding claims 9 and 11.

Claims 13, 15, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Herrmann, Liao, Haag, Chow and Glover for the reasons discussed regarding claims 9, 10, 11, 14, 16, 18, and 19.

Claims 23-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art in view of Ellis, Herrmann, Liao, Haag, Chow and Glover for the reasons discussed regarding claims 1-21. Regarding claims 44-63, the method of using the devices discussed regarding claims 1-21 would have been obvious at the time of the invention.

Response to Arguments

Applicant's arguments have been considered but are not persuasive. Applicant repeatedly argues that Ellis, Liao, Haag, Chow, and Glover are nonanalogous prior art. Remarks pages 16, 17, 20, 21, The examiner maintains that electrical cable connectors such as taught in Ellis, Liao, Haag, Chow and Glover are analogous art. The invention and the electrical cable connectors cited as prior art all are cable connectors using a rotatable threaded coupling sleeve. There is no reason why the cited prior art devices could not be used to modify the APA connector. Rather the applicant merely indicates that these connectors are not in the pertinent field of

endeavor because they are not welder cable connectors. The examiner is not persuaded that the relevant field of endeavor is limited to welder cable connectors and maintains that the relevant field of endeavor is cable connectors with threaded rotatable coupling sleeves. For example, the U.S. patent classification system makes no distinction between welder connectors and non-welder connectors. Rather, cable connectors secured by rotatable threaded sleeves are classified together (see e.g. class 439/320). This implies that one skilled in the art would consider the field of endeavor to be cable connectors with threaded rotatable sleeves, not just welder connectors with threaded rotatable sleeves.

In response to applicant's arguments against the references individually (remarks pages 17, 18, 19, 20, 21), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (remarks pages 19), it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ross Gushi whose telephone number is (571) 272-2005. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Paula A. Bradley, can be reached at 571-272-2800 extension 33. The phone number for the Group's facsimile is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

Application/Control Number: 10/619,764
Art Unit: 2833

Page 8

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ROSS GUSHI
PRIMARY EXAMINER

